DOCUMENT RESUME

ED 092 890 CS 001 154

AUTHOR Beagle, Barbara A.
TITLE A Comparison of Oral and Written Responses on Cloze Tests.
PUB DATE Jan 74
NOTE 72p.; M.Ed. Thesis, Rutgers University

EDRS PRICE MF-$0.75 HC-$3.15 PLUS POSTAGE
DESCRIPTORS *Cloze Procedure; Grade 2; Grade 4; Grade 6; Reading; *Reading Ability; *Reading Research; Reading Skills; Reading Tests

ABSTRACT

To determine the effect of oral responses on cloze test, particularly at the primary grade level and with students of below average reading ability, was the purpose of this study. A total of 135 students from second, fourth, and sixth grades were included in the study. At each grade level the students were divided into above-average, average, and below-average reading ability groups with 15 students in each group. Two cloze forms were prepared for each grade level using a 10 percent lexical deletion pattern. Each student completed both forms at his grade level. The forms were read silently, and one was completed with written responses and the second with oral responses which were recorded by the examiner. The t-tests for correlated means showed no significant differences between oral and written response scores at any of the three grade levels or for any of the reading ability groups. Significant positive correlations between the response modes were found at all three grade levels. The results indicated that oral responses did not affect cloze scores. Both response modes generally ranked students the same way. (Author/WR)

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

ED 092890

A COMPARISON OF ORAL AND WRITTEN RESPONSES ON CLOZE TESTS

A THESIS

SUBMITTED TO THE FACULTY

OF THE GRADUATE SCHOOL OF EDUCATION

OF

RUTGERS UNIVERSITY

THE STATE UNIVERSITY OF NEW JERSEY

BY

BARBARA A. BEAGLE

IN PARTIAL FULFILLMENT OF THE

REQUIREMENTS FOR THE DEGREE

OF

MASTER OF EDUCATION

PERMISSION TO REPRODUCE THIS COPYRIGHTED MATERIAL HAS BEEN GRANTED BY

Barbara A. Beagle

TO ERIC AND ORGANIZATIONS OPERATING UNDER AGREEMENTS WITH THE NATIONAL INSTITUTE OF EDUCATION. FURTHER REPRODUCTION OUTSIDE THE ERIC SYSTEM REQUIRES PERMISSION OF THE COPYRIGHT OWNER.

NEW BRUNSWICK, NEW JERSEY JANUARY 1974

APPROVED: James Scanlon, Chairman

Stanley VanOrden

Joseph Zdunich

DEAN:

CS 001 154

ACKNOWLEDGMENTS

The author expresses her sincere appreciation to Dr. James Swalm, chairman of her thesis committee, for his encouragement and expert direction, and to Dr. Phyllis Van Orden and Dr. Joseph Zelnick for their interest and valued suggestions.

The author wishes to acknowledge her indebtedness to Mr. Charles Swalm, Superintendent of the Manalapan-Englishtown Regional Schools, and to the administrators, teachers, and students of the Manalapan-Englishtown schools for their cooperation in this study.

Gratitude is also extended to Mr. Matthew Jago and the teachers and students of the Glen Cove School for their assistance in the pilot study.

The author extends a final note of thanks to her family for their patience and encouragement.

TABLE OF CONTENTS

	Page
ACKNOWLEDGMENTS	ii
LIST OF TABLES	v
Chapter	
I. INTRODUCTION	1
Background of the Problem	1
Importance of the Study	2
Statement of the Problem	2
Statement of the Hypotheses	2
Definitions of Terms	3
Limitations of the Study	4
Overview	5
II. REVIEW OF THE LITERATURE	6
Cloze Procedure	6
Readability	7
Comprehension	11
Teaching Device	14
Methodology	15
Variations in Response Mode on Cloze Tests	18
Summary	20
III. PROCEDURE	21

TABLE OF CONTENTS (continued)

Chapter		Page
	Population	21
	Selection of Materials	22
	Construction of the Instrument	23
	Administration of the Tests	26
	Treatment of the Data	28
IV.	RESULTS AND DISCUSSION	29
	Hypotheses	29
	The First Hypothesis	29
	The Second Hypothesis	31
	The Third Hypothesis	33
	Discussion	35
	Oral and Written Responses	35
	Correlations Between Oral and Written Responses	37
	Relationship to Cloze Research	38
V.	SUMMARY AND CONCLUSIONS	40
	Summary	40
	Conclusions	43
	Possibilities for Further Research	44
BIBLIOGRAPHY		46
APPENDIXES		
A.	Number of Cloze Responses	50
B.	Cloze Tests for Second, Fourth, and Sixth Grades	52

LIST OF TABLES

Table		Page
1.	Amount of Time Taken for Each Cloze Test and Coefficients of Correlation Between the Two Cloze Forms for Second, Fourth, and Sixth Grades	25
2.	Mean Cloze Scores for Oral and Written Responses in Second, Fourth, and Sixth Grades	30
3.	Mean Cloze Scores for Oral and Written Responses for Above-Average, Average, and Below-Average Reading Levels in Second, Fourth, and Sixth Grades	32
4.	Coefficients of Correlation Between Oral and Written Responses on Cloze Tests for Second, Fourth, and Sixth Grades	34
A1.	Mean Number of Cloze Responses for Oral and Written Response Conditions for Above-Average, Average, and Below-Average Reading Levels in Second, Fourth, and Sixth Grades	51

CHAPTER I

INTRODUCTION

Potter (1968) states that despite valuable knowledge which has been gained concerning the cloze procedure, a great deal more is still to be learned about this relatively new technique.

Various aspects of methodology regarding the construction and scoring of cloze tests have been investigated. However, variations in the response mode have received little attention.

Background of the Problem

The cloze procedure, as introduced by Taylor (1953), required a written response to complete cloze tests. In modifying the cloze procedure for use with first-graders, Gallant (1965) provided three choices for each deleted word.

Cranney (1968) compared the reliability and validity of free response and multiple-choice cloze tests using college students.

Recently oral responses have been used by Fry (1968b) and Swalm (1971) in conjunction with oral reading and listening cloze tests.

Importance of the Study

This study was conducted to determine the effect of oral responses on cloze test scores. Since fluency in oral language precedes the development of written language skills, a prime consideration was the possibility that oral responses would be relatively easier for young students or students of below-average achievement levels to produce.

The possible advantage of the oral response, particularly in using Cloze with primary-grade students or students of below-average reading ability, was a major concern of the study.

Statement of the Problem

This study will investigate the following questions.

1. Will the number of correct oral responses differ from the number of correct written responses on cloze tests in second, fourth, and sixth grades?

2. Are the differences between the two types of responses affected by reading level?

3. Will the two response modes rank students the same?

Statement of the Hypotheses

1. There will be no significant difference between the mean of oral response scores and the mean of

written response scores on cloze tests in second, fourth, and sixth grades.

2. There will be no significant difference between the mean of oral response scores and the mean of written response scores on cloze tests for above-average, average, and below-average reading categories in second, fourth, and sixth grades.

3. There will be a significant correlation between the two response modes on cloze tests in second, fourth, and sixth grades.

Definitions of Terms

Cloze. The cloze procedure is a measurement device which deletes every nth word from a language passage and requires subjects to fill in or supply the missing words based on their understanding of the remaining context. In this study a 10% random deletion pattern was used.

Oral response. An oral response was the word given orally by a subject for each deleted word encountered during the silent reading of the cloze passage. This spoken word was recorded by the examiner.

Written response. The written response was the word written by the subject to fill in each blank in the cloze passage.

Scoring. A correct response was one which

exactly matched the deleted word in the passage. Credit was given for incorrect spelling of written responses if the word could be recognized as the correct response.

On-grade reading material. A reading selection with a readability level which matched the actual grade level of the subjects was considered on-grade reading material. The readability level was determined by the Fry (1968a) Readability Graph.

Reading level. For this study, the students were divided into three categories described as above-average, average, and below-average reading levels. This division was made on the basis of the students' scores on the Reading Comprehension Sub-test of the California Reading Test. The above-average group was selected from students in the top 27%, the average group from students in the middle 46%, and the below-average group from students in the bottom 27% of the grade.

Limitations of the Study

First-graders were not a part of this study since testing was originally scheduled for a time in the school year when reading instruction was in its beginning stages. Therefore, it was impossible to determine the effect of oral responses on cloze testing at this grade level.

Also, a third testing condition using oral

reading with oral responses was not included due to the excessive amount of time required for individual testing.

Overview

Chapter II reviews the literature pertaining to the cloze procedure. A description of the population, the testing procedure, and the treatment of the data are included in Chapter III. The results of the study are presented in Chapter IV. Chapter V gives a summary and the conclusions regarding the hypotheses.

CHAPTER II

REVIEW OF THE LITERATURE

The major areas of research concerning the cloze procedure will be reviewed in this chapter. The emphasis will be on research in the elementary grades. However, relevant studies at other levels will be included where warranted by their importance or unique contribution to the survey.

Cloze Procedure

The cloze procedure, introduced by Taylor (1953) as a new means of "measuring the effectiveness of communication [p. 415]," was initially investigated as a measure of readability.

The research which followed this study explored the use of Cloze both as a measurement and teaching device. The effectiveness of Cloze in measuring readability and comprehension has received major attention. More recently, the use of Cloze has been employed to gain an understanding of factors which affect language, factors such as linguistic variables, physical and psychological disorders, and variations in literary style (Bickley, Ellington, & Bickley, 1970).

Variations in the cloze procedure itself have also been investigated. Different deletion patterns and scoring methods have been compared to determine the effect on the reliability and validity of this technique.

Readability

In determining readability with Cloze, passages are ranked according to the percentage of correct responses recorded by subjects completing the cloze form. Passages with the highest percentage of correct responses are considered the easiest or most readable. Taylor (1953), using college students, compared cloze ratings with readability scores obtained from the Flesch and Dale-Chall readability formulas and found that both methods ranked passages in the same way. However, Cloze appeared to be a truer measure of readability in non-standard works such as those by Erskine Caldwell, Gertrude Stein, and James Joyce.

The most extensive research in this area, at the elementary-grade level, has been done by Bormuth (1966) who studied the effect of a number of linguistic variables on readability. Such factors as word depth and frequency, letter and syllable counts, number of words per sentence, and phrases and clauses were tested by preparing five cloze forms for 24 passages and using a deletion pattern of every fifth word. In this way, every

word was deleted in one of the five forms. The subjects were randomly chosen from the fourth through sixth grades and each subject completed one form of each of the passages. Exact word responses were scored as correct and word difficulty was determined by the proportion of students responding correctly. The subjects were ranked according to total reading scores on the Stanford Achievement Test and divided into quartiles in order to test the relationship of each linguistic variable to various levels of readability and to investigate the shape of this relationship. Bormuth concluded that, generally, linguistic variables can predict equally well at all reading levels, but that some evidence of curvilinearity exists. He felt that further research in this area would provide useful information for adjusting readability formulas to improve their validity.

Another study by Bormuth (1967) compared cloze scores to multiple-choice scores. The purpose of this study was to provide equivalent cloze scores for the 75% and 90% comprehension scores generally regarded as the standard for determining instructional and independent reading levels. Passages from literature, history, and science materials, rated at a 4.5 to 6.5 reading level on the Dale-Chall readability formula, were administered to fourth- and fifth-graders. Bormuth found a cloze score

of 38% equivalent to a comprehension score of 75% and a cloze score of 50% equivalent to a comprehension score of 90%. Since these equivalent scores were based on informal multiple-choice tests constructed by Bormuth, verification of these results with other informal tests was recommended.

A replication of Bormuth's study by Rankin and Culhane (1969) generally confirmed Bormuth's results. Some variations were found in scores along the frame of reference and cloze scores of 41% and 61% were reported as comparable to the 75% and 90% scores.

A detailed description of the process by which Cloze can be applied in determining the readability of instructional materials is presented by Bormuth (1968). He recommends the use of Cloze as an accurate and less time-consuming way of choosing appropriate instructional materials for classroom use.

Guszak (1969) tested the instructional level score of Cloze established by Bormuth against placement scores on the Botel Reading Inventory (Word Opposites) and the Metropolitan Achievement Test (Reading Comprehension) and concluded that students were underplaced by the cloze tests. However, several factors may account for the discrepancy. Bormuth had established the cloze scores in relationship to informal multiple-choice tests

but not to standardized tests. Also the Botel test uses single words while the completion of cloze tests requires an understanding of the relationship of each word to overall meaning.

Research with Cloze in the primary grades has been limited. Bloomer (1962) and Schneyer (1965) felt that word recognition skills had to be well developed before the cloze technique could be used. However, Gallant (1965) used Cloze as a measure of readability with first-, second-, and third-graders and concluded that it was a reliable and valid measure at this level. Her study tested the effect of increased sentence length on the readability of passages for primary-grade readers.

In validating the Fry Readability Graph for primary-level materials, Fry (1968b) used an oral form of the cloze procedure with second- and third-graders. Correlations between Cloze, reading levels established by the Fry and Spache readability formulas, and oral reading errors ranged from .86 to .96.

These studies indicated that Cloze can be used effectively to measure readability. Its usefulness seems most appropriate in studying factors related to readability and in selecting appropriate materials for specific readers.

Comprehension

Cloze has been tested as a measure of both general and specific comprehension. Its value as a measure of general comprehension was tested by comparing it to standardized reading and intelligence tests. As a measure of specific comprehension, cloze scores on articles, passages, or speeches have been compared to other tests of comprehension prepared to measure the same material.

Taylor (1956, 1957) was also the leader in this area. A comparison of cloze scores to pre- and posttest scores on tests constructed to measure the content presented in articles in the Air Force Manual yielded correlation coefficients of .70 and .80, respectively. Correlations of .73 and .74 were obtained between cloze forms and a standardized intelligence test. Taylor (1957), in a second Air Force study, reported correlations ranging from .51 to .92 between Cloze and comprehension tests on specific articles and correlations of .85 between Cloze and Word Knowledge and .70 between Cloze and Abstract Reasoning.

On the elementary-grade level, high correlations have generally been found between cloze tests and both standardized and informal comprehension tests. Bormuth (1968) reported correlations ranging from .73 to .84 between cloze tests constructed from nine passages of

instructional materials and informal tests on these same materials constructed to measure vocabulary, stated facts, sequence of events, causal relationships, inferences, main ideas, and the author's purpose. Correlations ranging from .90 to .95 were reported between cloze tests and the Gray Oral Reading Paragraphs.

Rankin (1957, 1959), as reported by Bickley, Ellington, and Bickley (1970), compared two deletion patterns, any word and noun-verbs, on cloze pretests to sections on the Diagnostic Reading Test, Survey Section. The correlations were as follows: Story Comprehension--.29 (any word) and .57 (noun-verb), Vocabulary--.68 and .42, Paragraph Comprehension--.60 and .39. Posttest scores with a noun-verb deletion pattern were reported as .65 with Story Comprehension, .45 with Vocabulary, and .59 with Paragraph Comprehension.

In a study to determine the effect of high- and low-frequency patterns of language on the reading comprehension of fourth-graders, Ruddell (1965) reported correlations ranging from .61 to .72 between cloze tests and the Paragraph Meaning sub-test of the Stanford Achievement Test. He concluded that comprehension is significantly higher when high-frequency patterns of language are used in reading materials.

Schneyer (1965) found significant correlations

between cloze scores and the California Test of Mental Maturity and the Gates Reading Survey. Correlations were significant with both random tenth word deletions and noun-verb deletions.

Cloze scores of primary-grade students were correlated with the Paragraph Section of the Metropolitan Achievement Tests by Gallant (1965). The correlations ranged from .65 to .81.

Another area of language in which Cloze has been used to measure comprehension is listening. Weaver and Kingston (1963), using college students, prepared listening and reading cloze forms of essay material and speeches using both a structural and lexical deletion pattern. Scores on these eight cloze forms were compared to the Davis Reading Test, five sub-tests of the Modern Language Aptitude Test, the STEP Listening Test, and the Vocabulary, Word Relations and Reading Comprehension sub-tests of the Ohio State Psychological Examination. The relationships of the cloze tests to the standard tests used in the study ranged from low to moderate. The various forms of cloze tests used appeared closely related to redundancy utilization, one of the three factors isolated through factoral analysis.

Listening comprehension was compared to oral and silent reading comprehension using the cloze technique

with second-, third- and fourth-graders by Swalm (1971). Oral reading resulted in significantly higher comprehension at the second-grade level, but there were no significant differences in grades 3 and 4. The method of learning which was most effective was found to be related to reading level. Below-average readers at all three grade levels had better comprehension through listening, while average and above-average readers achieved higher comprehension following some form of reading.

Except for the findings of Weaver and Kingston (1963), Cloze appears to be a valid measure of both general and specific reading comprehension. Its use in measuring listening comprehension has not been studied as extensively as reading comprehension. However, it seems to provide a useful means of comparing the two skills.

Teaching Device

Rankin (1959) recommended the use of Cloze as a potential remedial and diagnostic technique. He suggested that having the students verbalize their reasons for the answers given would help to diagnose their weaknesses and strengths in reading.

The use of Cloze in a continuous program with college students by Bloomer (1962) resulted in significant increases in reading comprehension.

A comparison of two groups of sixth-graders, one using cloze forms of basal texts and the other using undeleted forms, was made by Schneyer (1965). Both groups improved in vocabulary and comprehension, but the cloze groups did not show significant improvement over the control groups.

Similar findings were reported by Heitzman and Bloomer (1967) using ninth-grade students. The authors suggested some possible explanation for the differences found in these studies. Bloomer's students progressed through the graded materials on the basis of their success and scored their own tests. The subjects in Schneyer's and Heitzman and Bloomer's studies had to complete all of the exercises which were then scored by the examiner. Greater motivation and immediate reinforcement of correct responses are the reasons proposed for the improvement found in Bloomer's study.

Methodology

Variations in deletion patterns have been explored in a number of studies. Both the number and kind of words deleted have been investigated.

Taylor (1953) compared deletions of every fifth, seventh, and tenth word and a random pattern of 10% of the total words in a passage. He concluded that the deletion of every fifth word was most efficient and a

random pattern of 10% of the total words more efficient than every tenth word in measuring intelligence, previous knowledge, learning, and comprehension.

Bormuth (1964), based on results with fourth- through eighth-graders, concluded that test form difficulty varied with the particular word deleted in a pattern of every fifth word. He recommended, therefore, that more than one cloze form or longer forms be used to increase reliability.

Swalm (1971) found high correlations between deletion patterns of random 10% and every fifth word in a pilot study using second-, third-, and fourth-graders. A pattern of every fifth word appeared to be very difficult for subjects at this grade level as reflected by the amount of time required to complete the cloze form.

Seven cloze forms, each deleting a different type of word, was used by Louthan (1965). One word in a 10-word segment was deleted. In each form, one of the following kinds of words was deleted: (1) the last word of the segment, (2) nouns, (3) verbs, (4) modifiers, (5) prepositions and conjunctions, (6) noun determiners, and (7) pronouns. A comparison of test scores between a control group who read undeleted passages and the experimental group who read cloze forms of the passages on 12 questions of fact and inference revealed that the

experimental group was superior only when using the form deleting noun determiners. Apparently this type of deletion focused attention on the nouns without interfering with the unity of the passages.

Weaver and Kingston (1963) reported higher correlations of structural deletions with vocabulary and reading comprehension on the Diagnostic Reading Test. Lexical deletions of nouns and verbs correlated higher with Story Comprehension.

The deletion of nouns and verbs was reported by Rankin (1959) as better tests of factual knowledge while random deletions were better tests of the comprehension of relationships.

Since different populations and standardized tests were used in studying deletion patterns, it is difficult at this time to judge conclusively which pattern is best for specific measurement. Structural deletions appear to be the most commonly used for general measurement purposes.

In scoring cloze tests, only responses which exactly match the deleted word have generally been counted as correct. However, several studies have compared this method with other scoring methods.

Ruddell (1964) compared exact words to synonyms in studying high- and low-frequency patterns of language.

Bormuth (1965) scored seven different categories of responses including grammatically and semantically correct and incorrect responses. Gallant (1965) compared exact word responses to synonyms which agreed in person and tense.

The exact word response was found to be most reliable. All grammatically correct responses correlated positively with comprehension ability, but exact responses provided the greatest discrimination. Synonyms which fit the syntactic pattern of language structure and agreed in number resulted in higher reliability coefficients only with high-frequency patterns of language structure.

Variations in Response Mode on Cloze Tests

Cloze has generally been administered by having the subjects read a deleted passage silently and write a free response for each blank (Taylor, 1953, 1957; Bormuth, 1966, 1967, 1968).

This procedure was modified by Gallant (1965) in testing first-grade students. Three choices were given for each blank and the students marked one of the choices. Potter (1968) stated that a modification of the cloze procedure is mandatory with first-graders due to their limited writing ability.

A comparison of free-response and multiple-choice cloze tests was made by Cranney (1968). Both long (300 items) and short (135 items) cloze forms were prepared of passages from college textbooks. One hundred college sophomores were used in the study. The cloze test scores were compared to reading comprehension scores on the Cooperative Reading Test. Shortening the cloze forms did not change the validity of the tests but decreased reliability coefficients. A significant difference between the validity of the short cloze forms favored the multiple-choice cloze test. Cranney concluded that all of the cloze forms were valid measures of reading comprehension and reliable for group comparisons.

In recent research, oral responses have been used in cloze testing. An oral form of Cloze was used by Fry (1968b) and Swalm (1971). In both of these studies the subjects read cloze passages orally and completed them with oral responses. In addition, Swalm (1971) tested listening comprehension using taped cloze tests and oral responses.

There appears to be no study in the present literature which directly compares oral and written responses on cloze tests.

Summary

Extensive research in the cloze procedure has generally demonstrated its value as a reliable and valid measure of comprehension and readability.

Although variations in deletion patterns and scoring have been investigated, the method of response has received little attention. Traditionally used with silent reading and written responses, two variations of this method have been the multiple-choice response and the oral response.

A comparison of multiple-choice and free-response cloze tests indicated that both were valid and reliable tests of reading comprehension.

Oral responses have been used with both oral reading of cloze tests and listening cloze tests. No information regarding the effect of this response mode on cloze testing was found in the literature.

CHAPTER III

PROCEDURE

This chapter includes a description of the population used in the study and the method by which cloze tests were constructed. The details concerning the administration of the tests and the treatment of the data are also presented.

Population

The subjects for this study were students in the Manalapan-Englishtown Regional schools. Manalapan-Englishtown, located in central New Jersey, has recently changed from a rural to a suburban community with the conversion of farm land to large housing developments. The population, according to the 1970 U.S. Census Report, is 15,097 with a reported median family income of $15,010 for Manalapan Township and $10,266 for Englishtown Boro. Employment is primarily outside of the community itself in middle management or skilled labor and technological positions.

The school district follows a plan of central organization with each grade located in one principal school. Students are bussed to the appropriate school.

The students in each grade are grouped homogeneously into accelerated, average, or modified classes. The grouping is done on the basis of standardized test scores in arithmetic and reading, pupil achievement, and teacher recommendation.

A total of 135 students from second, fourth, and sixth grades were included in the study with 45 students at each grade level. Of these 45 students, 15 were selected for each of the three reading categories. The students were randomly selected from a rank-order listing of all of the students in the grade based on their scores on the Reading Comprehension Sub-test of the California Reading Test. The above-average group was composed of students from the top 27% of the grade, the average group from the middle 46%, and the below-average group from the bottom 27%.

Selection of Materials

Six reading passages, two for each grade level, were selected mainly on the basis of two factors. First, the reading level of the passage, as determined by the Fry (1968a) Readability Graph, had to match the actual grade level of the subjects taking the test.

Second, the passages had to be of an informational nature although they were taken from reading texts. A third factor, the length of the passage, was also

considered. Passages containing approximately 300 words were desired. However, it was necessary at the fourth- and sixth-grade levels to edit or to use only a part of the selection in order to conform to this requirement.

Based on the above factors, the following selections were chosen:

Grade 2--"Your Wonderful Back Yard" from Reader's Digest Reading Skill Builder 2, Part 1 (Moore & Mastrotto, 1958), and "Our Friend the Catbird" from On We Go (McKee et al., 1966).

Grade 4--"Balsa, Nature's Wonder Wood" from Reader's Digest Reading Skill Builder 4, Part 1 (Wilcox & Thomas, 1959), and "Golly" from Trapped in the Ice (Harnden, 1962).

Grade 6--"The Wizardry of Webs" from Reader's Digest New Reading Skill Builder 6, Part 1 (Thomas, 1968), and "The Tournament" from Reading Power (Early, 1970).

Construction of the Instrument

Two of the selections, "The Catbird" and "Golly," were prepared and used in a previous study by Swalm (1971).

A pilot study was conducted to determine the suitability of the four remaining selections, the approximate time required for testing, and the best deletion

pattern for this group of students.

Two cloze forms were prepared for each of the four selections. A deletion pattern of every fifth word was used for Form A and a random 10% deletion of lexical words was used for Form B. The cloze forms were mimeographed and administered to three classes--a second, fourth, and a sixth grade. Half of the students completed Form A and half Form B for the first testing using reversed forms for the second testing which was conducted five days later.

The results of the pilot study indicated that a random 10% deletion pattern was most suitable for this study, both in terms of the time required to complete the forms and the number of responses given. A high correlation was found between the two deletion patterns for all four selections. The information regarding the testing time and correlations between the two forms are reported in Table 1.

For the second part of the pilot study, cloze forms of the two selections for each grade were prepared using a 10% lexical deletion pattern. The two forms were administered to 20 students at each grade level. Half of the students completed Form A and half Form B the first day of testing. The following day the same students completed the opposite cloze form. Correlations between

TABLE 1

AMOUNT OF TIME TAKEN FOR EACH CLOZE TEST AND COEFFICIENTS OF CORRELATION BETWEEN THE TWO CLOZE FORMS FOR SECOND, FOURTH, AND SIXTH GRADES

Grade	N	Minutes		Coefficients of correlation
		Fifth cloze	Tenth cloze	
Second	14	23	13	.97
Fourth	23	26	14	.79
Sixth*	6	15	8	.93
Sixth*	8	17	9	.87

*Two selections were tested at this level, "The Wizardry of Webs" and "The Tournament," respectively.

the cloze forms for the two selections at each grade level were computed. The correlation coefficients were .84 for the second grade, .85 for the fourth grade, and .76 for the sixth grade.

The selections used in the pilot study proved to be appropriate for testing. Therefore, the titles listed under Selection of Materials were those used in the main study. A 10% deletion pattern of lexical words resulted in a total number of 28 blanks on the cloze forms for the second and fourth grades and 30 blanks on the cloze forms for the sixth grade.

Administration of the Tests

All of the testing was done by the author. The students were tested in pairs. One student worked with the examiner giving oral responses for one of the cloze forms. The second student completed the opposite cloze form giving written responses. When both students had finished their first forms, they changed places and completed the reverse forms using the opposite response modes. In this way each student completed both forms and used both response modes in one testing session. The testing was conducted in March over a period of four weeks.

Mimeographed copies of the cloze tests were used. Written responses were recorded by the student

on the blank spaces provided on the cloze forms. The oral responses were recorded by the examiner on a separate answer sheet. No time limits were imposed.

Each student completed both cloze forms giving oral responses for one form and written responses for the second, thereby acting as his own control. In order to control for differences in the two forms, an AB BA design was used. Half of the students used Form A and half Form B for the written response testing condition. Reversed forms were used for the oral testing condition.

The following instructions were given for the written response testing condition:

1. Read the story silently.
2. When you come to a blank space, write the missing word in the blank.
3. Write only one word in each blank.
4. Try to fill in every blank. Don't be afraid to guess.
5. Wrong spelling will not be counted against you if I can tell what word you mean.

The instructions for the oral response testing condition were as follows:

1. Read the story silently.
2. When you come to a blank space, say the word that you think belongs in the blank out loud.

3. Try to give a word for every blank. Don't be afraid to guess.

A sample exercise preceded the administration of the actual test form.

Only exact word replacements were counted as correct. Credit was given for the incorrect spelling of written responses if the word could be recognized as the correct response. Questionable written responses were evaluated by two independent judges. Each student's score was the total number of correct responses given.

Treatment of the Data

A total of the number of correct responses obtained under both testing conditions was computed and the means of the correct oral response scores and the correct written response scores for each of the three grades were derived. In addition, the means of correct oral and correct written response scores for each of the three reading categories in each grade were computed.

A Pearson product-moment correlation coefficient was calculated for each grade to determine the relationship between oral and written responses.

A *t* test for correlated means was used to determine the significance of the difference between the means of oral and written response scores for each grade and for each of the three reading levels for each of the grades.

CHAPTER IV

RESULTS AND DISCUSSION

The results of this investigation will be presented and discussed in this chapter. The hypotheses will be discussed first. Then, the results will be examined and related to pertinent studies reported in Chapter II.

Hypotheses

The First Hypothesis

The first hypothesis compared the mean scores of oral and written responses in second, fourth, and sixth grades to determine the significance of the differences between the scores. The mean scores for the two response modes are reported in Table 2.

The differences between the mean scores at all three grade levels were small. At the second- and sixth-grade levels, mean written response scores were higher than mean oral response scores. The mean oral response score was higher at the fourth grade level. A *t* test for correlated means showed that there were no significant differences between the means at any of the three

TABLE 2

MEAN CLOZE SCORES FOR ORAL AND WRITTEN RESPONSES IN SECOND, FOURTH, AND SIXTH GRADES

Grade	N	Oral responses		Written responses		t score
		Mean score	S.D.	Mean score	S.D.	
Second	45	6.73	5.18	6.98	5.88	-.28
Fourth	45	7.80	5.82	7.44	5.17	.85
Sixth	45	5.65	4.23	5.87	4.59	-.43

grade levels. Therefore, the first null hypothesis was accepted.

The Second Hypothesis

The second hypothesis investigated the effect of reading level on oral and written responses. At each grade level, the total group was divided into three sub-groups of above-average, average, and below-average reading abilities. The mean scores for each of these sub-groups are reported in Table 3.

A similar pattern of mean scores for the three ability groups occurred at the second- and sixth-grade levels. At the fourth-grade level, this pattern was reversed.

No significant differences were found for any of the sub-groups at the second-, fourth-, and sixth-grade levels. Thus, the second null hypothesis was accepted.

Above-average reading group. The test results showed that students of above-average reading ability in the second and sixth grades performed better on cloze tests using written responses. At the fourth-grade level, the above-average group scored higher in the oral response testing condition. However, the differences between the means were small at all three grade levels and were not significant.

Average group. The average groups exhibited the

TABLE 3

MEAN CLOZE SCORES FOR ORAL AND WRITTEN RESPONSES FOR ABOVE-AVERAGE, AVERAGE, AND BELOW-AVERAGE READING LEVELS IN SECOND, FOURTH, AND SIXTH GRADES

Reading level	N	Oral responses		Written responses		t score
		Mean score	S.D.	Mean score	S.D.	
		Second grade				
Above average	15	12.07	3.84	12.73	5.11	- .32
Average	15	5.80	3.21	6.53	3.52	- .50
Below average	15	2.33	2.60	1.67	1.89	.79
		Fourth grade				
Above average	15	13.47	3.32	12.80	1.60	.78
Average	15	8.73	3.53	7.80	3.53	1.10
Below average	15	1.20	1.22	1.73	1.91	-1.29
		Sixth grade				
Above average	15	10.00	2.28	10.20	2.95	- .20
Average	15	5.33	3.42	6.20	3.33	- .78
Below average	15	1.60	1.14	1.20	1.68	.82

same pattern as that of the above-average groups. Average readers in the second and sixth grades obtained higher mean scores with written responses while average fourth-grade readers scored higher with oral responses. The differences between the means were small and not significant.

Below-average group. The pattern of mean scores for below-average readers was the reverse of that found in the above-average and average reading groups. At this reading level, second- and sixth-grade students obtained higher mean scores with oral responses. The mean written response score was higher for below-average readers at the fourth-grade level. The differences between the mean scores were not significant at any of the grade levels.

The Third Hypothesis

The significance of correlation between the two modes of response in second, fourth, and sixth grades was investigated in the third hypothesis. The results are reported in Table 4.

In all three grades, the coefficients of correlation ranging from .44 to .88 were significant. Therefore, the third hypothesis was accepted.

TABLE 4

COEFFICIENTS OF CORRELATION BETWEEN ORAL AND WRITTEN RESPONSES ON CLOZE TESTS FOR SECOND, FOURTH, AND SIXTH GRADES

Grade	N	Coefficients of correlation
Second	45	.44*
Fourth	45	.88*
Sixth	45	.70*

*Significant at the .01 level.

Discussion

Oral and Written Responses

The results of this investigation do not indicate any significant difference between oral and written responses on cloze tests at the grade levels tested. The possible advantage of oral responses in testing primary-grade students suggested in Chapter I was not supported by these findings. The small difference between mean scores found at the second-grade level favored the written response. Mean oral response scores were slightly higher only at the fourth-grade level.

A second possibility suggested in Chapter I was that oral responses might be relatively easier for students of below-average reading ability to produce and thereby improve their performance on cloze tests. Although the below-average groups in the second and sixth grades had higher mean oral response scores, they were not significantly higher. At the fourth-grade level, the below-average group had a higher mean written response score which was also not significantly higher. Therefore, the possiblity that oral responses would significantly improve the performance of below-average readers was not supported by this study.

One significant difference which did appear at the below-average ability level, however, was between

the number of responses given under the two testing conditions. The below-average group in the sixth grade produced a significantly higher number of responses using the oral response mode. At the second-grade level, the difference favoring the oral response condition approached a significant level. These results are reported in Appendix A. At the fourth-grade level, where the mean written response score was higher, the difference between the number of responses given favored the written response condition, but was not large or significant. Mean cloze scores, therefore, appeared to reflect the actual number of responses given under the two testing conditions. At the average and above-average levels, the differences between the number of responses given were small since, in most cases, the students completed the entire cloze form under both testing conditions.

The reasons for the significantly higher number of responses given under the oral response condition for below-average readers in the second and sixth grades was not clear from this study. One possible explanation might be that oral responses were easier for this group to produce. A second explanation or contributing factor may have been the one-to-one relationship between the examiner and the student which existed under the oral

response testing condition. At the second- and sixth-grade levels, the below-average readers attempted to complete more of the cloze form and appeared to concentrate harder and for a longer period of time when working directly with the examiner.

Why a similar pattern of both number of responses given and mean cloze scores occurred with below-average readers at the second- and sixth-grade levels and not at the fourth-grade level was difficult to explain. Below-average readers in the sixth grade produced fewer responses and seemed to have the most difficulty with the selections. The gap between the reading level of the students and the readability level of the two cloze selections was greatest at the sixth-grade level. The direct relationship with the examiner under oral response testing conditions may have encouraged these students to complete more of the cloze form than they did when working alone.

Correlations Between Oral and Written Responses

The significant positive correlations found at all three grade levels tested showed that both oral and written responses generally ranked students the same way.

At the fourth- and sixth-grade levels, the correlation coefficients of .88 and .70 indicated a high

relationship between oral and written responses. At the second-grade level, the correlation coefficient of .44 indicated a moderate relationship between response modes.

The moderate relationship found at the second-grade level suggested individual differences at this level in completing cloze forms with oral and written responses.

Relationship to Cloze Research

The one study found in the literature which was directly concerned with modes of response on cloze tests was that conducted by Cranney (1968). In his study, a comparison of free-response and multiple-choice responses on cloze tests to standardized reading test scores found both response modes to be equally valid and reliable. Although the investigation of oral and written responses did not include a comparison with standardized reading test scores, the lack of significant differences between cloze scores and the significant correlations found between the two response modes did not indicate any significant effect of the oral response mode on the cloze procedure. Therefore, the two variations in the response mode which have been investigated in cloze research, the oral response and the multiple-choice response, do not appear to affect the cloze procedure as originally investigated by Taylor (1953) in which the written

response was used.

In a comparison of listening, oral reading, and silent reading comprehension, Swalm (1971) used both oral and written responses. At the second-grade level, oral reading comprehension was significantly higher than listening or silent reading comprehension and listening comprehension was significantly higher for below-average groups at all three grade levels tested. In testing oral reading and listening comprehension, oral responses were used while silent reading comprehension was tested using written responses. The findings presented here concerning the oral and written response modes gave no indication that the comprehension differences found by Swalm were affected by the mode of response. In fact, it was frequently noted during the present investigation that second-grade students often reverted to oral reading in completing the cloze forms and had to be reminded to read silently.

CHAPTER V

SUMMARY AND CONCLUSIONS

A summary of the procedure and results of this study will be given in this chapter. In addition, conclusion regarding the hypotheses will be discussed and possibilities for further research will be suggested.

Summary

A comparison of oral and written responses on cloze tests was undertaken to determine the possible advantage of the oral response in testing primary-grade students and students of below-average reading ability. A total of 135 students in second, fourth, and sixth grades took part in the study with 45 students at each grade level. On the basis of reading comprehension scores on the California Reading Test, the students were assigned to above-average, average, and below-average reading ability groups. At each level, 15 students were included in each of the sub-groups.

Two cloze forms were prepared for each grade level using a random 10% deletion pattern of lexical words. The selections had a readability level which matched the actual grade level of the students tested.

Each student completed both cloze forms at his grade level by reading the selection silently and giving oral responses for one form and written responses for the second. An AB BA design was used to control for differences in the two test forms. Half of the students completed Form A with oral responses and Form B with written responses while the other half of the students used a reverse cloze form pattern.

The students were tested in pairs. The examiner worked with one student recording oral responses for one of the cloze forms while the other student completed the opposite form using written responses. The students then changed places, thereby completing the two forms using both response modes in one testing session.

When the testing was completed, the mean scores for oral and written responses were computed for each grade and for each of the sub-groups within each grade. A t test for correlated means was used to compare the mean scores. A Pearson product-moment correlation coefficient was also computed for the three grade levels.

No significant differences were found between mean oral response scores and mean written response scores for second, fourth, or sixth grades or for any of the three reading ability groups within each of these three grades. A similar pattern of mean scores occurred

at the second and sixth grades with a reverse pattern at the fourth-grade level. At the second- and sixth-grade levels, the total group and the above-average and average readers had higher mean written response scores. The below-average readers had higher mean oral response scores. The total group and above-average and average readers at the fourth-grade level scored higher with oral responses while the below-average readers had a higher mean written response score.

Although mean oral response scores for below-average readers in the second and sixth grades were not significantly higher than mean written response scores, the actual number of responses given under the oral response condition were significantly higher at the sixth-grade level and approached significance at the second-grade level. Below-average readers in the fourth grade had a higher, though not significant, mean written response score and there was no significant difference between the number of responses given under the two testing conditions. Two possible reasons given for the significantly higher number of responses under the oral testing condition in second and sixth grades were that oral responses were easier for these students to produce or that the one-to-one relationship between the student and the examiner in obtaining oral responses encouraged

student performance. It was not clear why this occurred for below-average readers at the second- and sixth-grade levels and not at the fourth-grade level.

The correlations between oral and written responses were significant at all three grade levels. The correlation coefficients for the second, fourth, and sixth grades were .44, .88, and .70, respectively.

The results of this investigation indirectly agreed with or confirmed findings from other studies in which modifications of the cloze response mode were involved. The lack of significant differences between oral and written response scores and the significant positive correlations between the two response modes were generally similar to the results of a comparison between free and multiple-choice responses where both were found to be valid and reliable. The lack of significant differences between oral and written response modes also indicated that differences found in oral reading, silent reading, and listening comprehension were not due to the use of both oral and written responses in testing comprehension with Cloze.

Conclusions

The lack of significant differences between mean cloze scores for the two response modes at all three grade levels indicated that cloze scores were not

affected by the use of oral responses.

The reading level of the students also appeared to have no effect on cloze scores obtained by written or oral responses. The possible advantage of oral responses in testing students of below-average reading ability was not supported by the results of this study.

The significant positive correlation coefficients at all three grade levels showed that oral and written responses generally ranked students the same way. The moderate relationship found at the second-grade level suggested individual differences in completing cloze tests with oral and written responses at this grade level.

Possibilities for Further Research

The effect of oral responses on cloze tests at the first-grade level was not investigated in this study. However, modifications of the cloze procedure for first-graders have been used. A comparison of both oral responses and multiple-choice responses to free responses at the first-grade level would determine the effect of these modifications in using Cloze with first graders.

The individual testing of students with the cloze procedure used in this study in obtaining oral responses provided the opportunity to make informal observations regarding the reading practices of students at different

reading ability levels. A controlled investigation of the kinds of responses given and the methods used by the students in choosing responses on cloze tests may provide useful information regarding the reading processes of students of different reading abilities.

BIBLIOGRAPHY

Bickley, A. C., Ellington, B. J., & Bickley, R. T. The cloze procedure: A conspectus. Journal of Reading Behavior, 1970, 2(4), 232-249.

Bloomer, R. H. The cloze procedure as a remedial reading exercise. Journal of Developmental Reading, 1962, 5, 173-181.

Bormuth, J. R. Experimental application of cloze tests. In J. A. Figurel (Ed.), Improvement of reading through classroom practice, IRA Conference Proceedings. Newark, Del.: International Reading Association, 1964, 9, 303-306

Bormuth, J. R. Validities of grammatical and semantic classifications of cloze test scores. In J. A. Figurel (Ed.), Reading and inquiry, IRA Conference Proceedings. Newark, Del.: International Reading Association, 1965, 10, 283-285.

Bormuth, J. R. Readability: A new approach. Reading Research Quarterly, 1966, 1(3), 79-131.

Bormuth, J. R. Comparable cloze and multiple-choice comprehension test scores. Journal of Reading, 1967, 10, 291-299.

Bormuth, J. R. The cloze readability procedure. Elementary English, 1968, 45, 429-436.

Cranney, A. G. A comparison of a free-response and multiple-choice cloze reading test. (Doctoral dissertation, University of Minnesota) Ann Arbor, Mich.: University Microfilms, 1968, No. 68-1225.

Early, M. Reading power. New York: Harcourt, Brace & World, 1970.

Fry, E. B. A readability formula that saves time. Journal of Reading, 1968, 11, 513-516. (a)

Fry, E. B. The readability graph validated at primary levels. Washington, D. C.: Office of Education (DHEW), Bureau of Research, 1968, ED 023 565. (b)

Gallant, R. Use of cloze tests as a measure of readability in the primary grades. In J. A. Figurel (Ed.), Reading and inquiry, IRA Conference Proceedings. Newark, Del.: International Reading Association, 1965, 10, 286-287.

Guszak, F. J. A comparative study of the validity of the cloze test (reading comprehension sub-test) for making judgements of instructional levels. Austin, Tex.: Texas University, 1969, ED 039 108.

Harnden, R. Trapped in the ice. New York: Scholastic Book Services, 1962.

Heitzman, A., & Bloomer, R. H. The effect of non-overt reinforced cloze procedure upon reading comprehension. Journal of Reading, 1967, 11, 213-223.

Louthan, V. Some systematic grammatical deletions and their effects on reading comprehension, English Journal, 1965, 54, 295-299.

McKee, P., Harrison, M., McCowen, A., Lehr, E., & Durr, W. On we go. New York: Houghton Mifflin, 1966.

Moore, L., & Mastrotto, L. V. Reader's Digest reading skill builder 2, Part 1. Pleasantville, N. Y.: Reader's Digest Services, 1958.

Potter, T. C. A taxonomy of cloze research. Part 1: Readability and reading comprehension. Washington, D.C.: Office of Education (DHEW), Bureau of Research, 1968, ED 035 514.

Rankin, E. F. An evaluation of the cloze procedure as a technique for measuring reading comprehension. Unpublished doctoral dissertation, University of Michigan, 1957. Cited by A. C. Bickley, B. J. Ellington, & R. T. Bickley. The cloze procedure: A conspectus. Journal of Reading Behavior, 1970, 2(4), 232-249.

Rankin, E. F. Uses of cloze procedure in the reading clinic. In J. A. Figurel (Ed.), Reading in a changing society, IRA Conference Proceedings. New York: Scholastic Magazines, 1959, 4, 228-232.

Rankin, E. F. The cloze procedure--its validity and utility. In O. S. Causey & W. Eller (Eds.),

Eighth Yearbook of the National Reading Conference. Milwaukee: National Reading Conference, 1965. Cited by A. C. Bickley, B. J. Ellington, & R. T. Bickley. The cloze procedure: A conspectus. Journal of Reading Behavior, 1970, 2(4), 232-249.

Rankin, E. F., & Culhane, J. Comparable cloze and multiple-choice comprehension test scores. Journal of Reading, 1969, 12, 1-8.

Ruddell, R. A study of the cloze comprehension technique in relation to structurally controlled reading material. In J. A. Figurel (Ed.), Improvement of reading through classroom practice, IRA Conference Proceedings. Newark, Del.: International Reading Association, 1964, 9, 298-303.

Ruddell, R. The effect of oral and written patterns of language structure on reading comprehension. The Reading Teacher, 1965, 18, 270-275.

Schneyer, J. W. Use of the cloze procedure for improving reading comprehension. The Reading Teacher, 1965, 19, 174-179.

Swalm, J. E. Comparison of oral reading, silent reading and listening comprehension assessed by Cloze. Unpublished doctoral dissertation, Rutgers--The State University, New Brunswick, N. J., 1971.

Taylor, W. L. Cloze procedure: A new tool for measuring readability. Journalism Quarterly, 1953, 30, 415-433.

Taylor, W. L. Recent developments in the use of the cloze procedure. Journalism Quarterly, 1956, 33, 42-48.

Taylor, W. L. Cloze readability scores as indices of individual differences in comprehension and aptitude. Journal of Applied Psychology, 1957, 41, 19-26.

Thomas, L. A. Reader's Digest new reading skill builder 6, Part 1. Pleasantville, N. Y.: Reader's Digest Services, 1968.

U.S. Census of Population: 1970, General Social and Economic Characteristics--New Jersey. Washington,

D.C.: U.S. Department of Commerce, Bureau of the Census, 1970.

Weaver, W. W., & Kingston, A. J. A factor analysis of the cloze procedure and other measures of reading and language ability. The Journal of Communication, 1963, 13, 252-261.

Wilcox, L. A., & Thomas, L. A. Reader's Digest reading skill builder 4, Part 1. Pleasantville, N. Y.: Reader's Digest Services, 1959.

APPE'DIX A

NUMBER OF CLOZE RESPONSES

TABLE A1

MEAN NUMBER OF CLOZE RESPONSES FOR ORAL AND WRITTEN RESPONSE CONDITIONS FOR ABOVE-AVERAGE, AVERAGE, AND BELOW-AVERAGE READING LEVELS IN SECOND, FOURTH, AND SIXTH GRADES

Reading level	N	Oral response condition	Written response condition	t score
		Mean	Mean	
		Second grade		
Above average	15	27.73	27.80	- .11
Average	15	22.07	25.20	-1.60
Below average	15	19.27	14.33	1.74
		Fourth grade		
Above average	15	27.87	26.87	1.51
Average	15	24.40	24.67	- .21
Below average	15	20.53	21.67	- .45
		Sixth grade		
Above average	15	28.07	28.73	- .91
Average	15	25.33	26.80	-1.43
Below average	15	16.93	13.20	1.82*

*Significant at the .05 level.

APPENDIX B

CLOZE TESTS FOR SECOND, FOURTH, AND SIXTH GRADES

The following cloze test was used as Form A in the second grade. The selection was an excerpt from Reader's Digest Reading Skill Builder, 2, Part 1 (Moore & Mastrotto, 1958).

"Your Wonderful Back Yard"

You do not have to go ____(far)____ away from home to be an explorer. Just ____(look)____ in your own back yard.

Just look down to see what ____(is)____ going on in the ____(grass)____ around you. You may be surprised.

Maybe you will see a ____(beetle)____ on his way. Yes, a beetle is very ____(small)____. But do you know that the beetle is one of the strongest ____(animals)____ in all the world?

Some beetles can ____(carry)____ 850 times their own weight. If ____(you)____ could do that, you could carry 100 pianos. If an elephant could do that, it could carry a ____(whole)____ train on its back.

Maybe you will ____(see)____ two ants meet. Watch them. They put out their ____(feelers)____. They tap each other. What are they ____(doing)____? Are they saying hello? Are they telling each other ____(something)____? No one knows.

Do you think an ____(explorer)____ has to go far

away to find out something new?

An explorer in a ___(back)___ yard can find out new ___(things)___, too.

For years, no one knew just how one kind of spider ___(got)___ its food. No one had ever seen this ___(kind)___ of spider make a web. A spider ___(catches)___ its food in its web. How did this ___(spider)___ get food if it did not make a web?

One day a boy ___(found)___ out. He found out right in his own back ___(yard)___.

He watched and ___(watched)___ the spider. He found out what no one knew before. He saw the spider make its ___(web)___ after dark. He saw it take down the web before ___(morning)___.

You can be this kind of explorer, too. Learn to ___(explore)___ the world ___(around)___ you at home and at school. Use your eyes.

The following cloze test was used as Form B in the second grade. The selection was an excerpt from On We Go (McKee et al., 1966).

"Our Friend the Catbird"

Have you ever heard a ___(bird)___ that sounds like a cat? There is a bird that can make a ___(noise)___ just like the ___(meow)___ of a cat. That bird is called the ___(catbird)___.

The catbird doesn't always ___(sound)___ like a cat. Often he makes real ___(music)___. He can also give the ___(bird calls)___ of other birds. Then you have to see him to be sure that you ___(hear)___ a catbird.

A catbird seems to be all ___(gray)___. However, if you can get a good ___(look)___ at one, you can see a black ___(cap)___. Sometimes you can see some red near the tail. In the ___(spring)___, mother and father catbird look for a good place to ___(build)___ a nest. They like to build their ___(nest)___ where it can't be seen without looking for it. The nest holds from ___(three)___ to six eggs. The mother catbird lays the ___(eggs)___ in the nest. Then, the father catbird will take a turn ___(sitting)___ on them.

The ___(young)___ catbirds come from the eggs. There is a ___(noisy)___ time. The young birds call for ___(food)___. The mother and father catbird work hard

taking care of their young.

Catbirds are curious about ___(people)___. Often they will follow a ____(man)____ along a road just as if they want to find out where he is ___(going)___. They are ___(curious)___ about noises, too. If they hear a ___(strange)___ noise, they soon go to find out what is happening.

Catbirds make fine music all ___(spring)___. They also eat things that might hurt ___(gardens)___. That is why people like to have them ___(around)___.

The following cloze test was used as Form A in the fourth grade. The selection was an excerpt from Trapped in the Ice (Harnden, 1962).

"Golly"

Golly jumped down from his grandfather's beach ___(buggy)___ and ran over to the edge of the ___(cliff)___. His grandfather's little dog, Jib, bounced through the ___(snowdrifts)___ behind him.

The harbor was white. Golly had seen it ___(blue)___, and green, and purple. On ___(rainy)___ days it was gray and sometimes it was a sort of ___(yellow)___. But now it was pure white. And nothing seemed to ___(move)___. Even the smallest waves were gone, and the ___(water)___ was flat as the top of a table. And where were the ___(gulls)___?

Golly had always visited his grandfather in the ___(summers)___ before now. And he had always ___(watched)___ the gulls. No matter what color the ___(water)___ was, or the sky, there were always the white gulls ___(flying)___, or wheeling, or just coasting on the ___(wind)___. Nothing had ever seemed to him as free as the gulls flying out over the ___(sea)___, riding the huge sky, and filling the air with the ___(sound)___ of their voices.

"I'll teach you to ___(swim)___ like a fish,"

his (grandfather) had told him, and he did. But no one could ever (teach) him to fly like a (gull), not even his grandfather. "I'll teach you to dive," his (grandfather) had told him, and he did. But not even his grandfather could teach him to (dive) like a gull, (straight) down out of the air and then straight back up again into the (sky).

"I wish I were a gull," (Golly) used to say sometimes. Then his grandfather would say, "But (God) never meant you to be a gull." Golly (listened) to his grandfather, but still he always watched the (gulls).

The following cloze test was used as Form B in the fourth grade. The selection was an excerpt from Reader's Digest Reading Skill Builder 4, Part 1 (Wilcox & Thomas, 1959).

"Balsa, Nature's Wonder Wood"

Balsa, the lightest wood in the ___(world)___, is only half as heavy as cork. ___(Balsa)___ trees are found almost anywhere in hot ___(countries)___. The trees have rather smooth bark and large, broad leaves. Balsa trees may grow as ___(high)___ as an eight-story ___(building)___ with trunks that may be a yard across.

You ___(know)___ what a honeycomb looks like. Balsa is very much like a ___(honeycomb)___. It is made of many, many tiny cells which give it ___(lightness)___ and make it able to ___(float)___ on water.

As the trees grow older, the cell walls get ___(thicker)___. The wood becomes heavier. For this reason, only ___(trees)___ less than five years old are used.

Balsa wood is ___(easy)___ to work with. Under a knife, it ___(cuts)___ like butter. It is somewhat like rubber, for a ___(piece)___ of it can be pressed between the fingers to half its ___(size)___.

At first, Balsa wood cost a great deal. As it

was ___(used)___ more widely its price went down. Because balsa is so ___(light)___, it was at first used to ___(build)___ airplanes and fast boats. Now most ___(planes)___ are made of light metal, but balsa is still used for model planes.

Balsa makes soundproof ___(rooms)___ for radio and movie use. Furniture ___(builders)___ use it for packing furniture to ship. Balsa will not ___(scratch)___ the finish of fine wood.

Have you seen the small ___(floats)___ that hold the life ___(lines)___ at the beach? These floats are often made of balsa. When floating in ___(water)___, this wonder wood can carry almost ten times its own ___(weight)___. So the life preserver in front of the ___(lifeguard's)___ station may be of balsa.

___(Trucks)___ that bring ice cream may have bodies of balsa. Here, the wonder wood keeps out the heat.

The following cloze test was used as Form A in the sixth grade. The selection was an excerpt from Reader's Digest New Reading Skill Builder 6, Part 1 (Thomas, 1968).

"The Wizardry of Webs"

From rock to grass ___(blade)___ and from twig to petal the earth is strung with ___(spider)___ webs. They are the signal lines, ___(traps)___, roads and nurseries of some 40,000 kinds of spider. On every acre of ___(countryside)___, thousands of spiders are at work.

To meet their ___(needs)___, spiders make silk of many kinds and weaves. One ___(thread)___ is right for dropping over a cliff, another for fastening ___(webs)___ to leaves, and still ___(another)___ for sending messages.

The silk is made as a liquid. It ___(flows)___ from the spider's body through six spinnerets, each tipped with tiny tubes that move ___(like)___ human fingers. They pull and twist the silk, ___(spinning)___ it into a thread.

The first need in a spider's ___(life)___ is to get ___(away)___ from home. Unless it does, a parent, brother or sister may eat it. Right after ___(hatching)___ from its egg, the baby spider ___(prepares)___

to go "ballooning." It spins out a length of fine silvery ___(thread)___. Lifted by the ___(wind)___, the thread carries the spiderling away.

The spider's second need is for ___(food)___. One kind of food trap is a simple sheet of strong thread tightly ___(woven)___ between two grass blades. At the edges of the ___(sheet)___ the spider ___(attaches)___ "wild" threads made of an especially fine silk. These threads, floating free, ___(trap)___ insects that fly by and tumble them onto the sheet.

If it ___(does)___ not wish to eat a trapped ___(insect)___ at once, a spider wraps its victim in a wide ___(band)___ of strong silk. When the spider is ___(ready)___ it drinks its meal using its own digestive ___(juices)___ to turn the insects insides into liquid. The insect will ___(grow)___ smaller and smaller as the feast goes ___(on)___. A mere dot may remain, bound in silk. The webs of some spiders are hung with these ___(dots)___.

The following cloze test was used as Form B in the sixth grade. The selection was an excerpt from Reading Power (Early, 1970).

"The Tournament"

Games of ____(war)____ are probably as old as war itself. Men who had to ____(fight)____ in earnest usually liked to fight for ____(fun)____ as well. It was the best way to train men for ____(battle)____ in the days before there were any professional armies.

In ____(early)____ feudal times the knights' war ____(game)____ was the tournament. It probably came from an old Roman ____(sport)____ called the Trojan Game. In the tournament the idea was to make ____(straight)____ for your man and knock him flat as ____(quickly)____ as possible.

The early tournaments were savage and bloody games. They were no ____(different)____ from real battles except that the ____(fighters)____ were supposed to be friends. ____(They)____ certainly did not act like friends. A group of knights who had ____(nothing)____ else to do would find a flat piece of ground, ____(choose)____ sides, and hack away at each other ____(until)____ everyone was exhausted, wounded or dead. Sometimes, as many as 3,000 ____(knights)____ would be seen having a good time ____(killing)____ each other.

This may seem a strange way of enjoying yourself, but it was perfect (sport) for the early (feudal) knights. They were violent men who did not know what mercy and (gentleness) were. They had never heard of the (Code) of Chivalry, which meant so much to the knights in medieval (times).

There were no rules for the feudal knight (except) his own whim. At first there were no rules for the tournament (either). The battlelike fights were (called) melees, which mean mix-ups. There could not have been a (better) name for them.

Something had to be done to (stop) the knights from wiping themselves out. In the eleventh century, a knight set (down) the first rules for the (tournament). They helped to make it more of a (sport) and less of a bloodbath. However, it was still a dangerous sport.

A COMPARISON OF ORAL AND WRITTEN RESPONSES ON CLOZE TESTS

AN ABSTRACT OF A THESIS

SUBMITTED TO THE FACULTY

OF THE GRADUATE SCHOOL OF EDUCATION

OF

RUTGERS UNIVERSITY

THE STATE UNIVERSITY OF NEW JERSEY

BY

BARBARA A. BEAGLE

IN PARTIAL FULFILLMENT OF THE

REQUIREMENTS FOR THE DEGREE

OF

MASTER OF EDUCATION

COMMITTEE CHAIRPERSON: JAMES SWALM, Ed.D.

NEW BRUNSWICK, NEW JERSEY JANUARY 1974

ABSTRACT

The purpose of this study was to determine the effect of oral responses on cloze tests particularly at the primary grade level and with students of below-average reading ability. Two cloze forms were prepared for each grade level using a 10% lexical deletion pattern. Each student completed both forms at his grade level. The forms were read silently and one was completed with written responses and the second with oral responses which were recorded by the examiner.

A total of 135 students from second, fourth, and sixth grades were included in the study. At each grade level the students were divided into above-average, average, and below-average reading ability groups with 15 students in each group.

The *t* tests for correlated means showed no significant differences between oral and written response scores at any of the three grade levels or for any of the reading ability groups. Significant positive correlations between the response modes were found at all three grade levels.

The results of this study indicated that oral responses did not affect cloze scores. Both response modes generally ranked students the same way.

The individual testing procedure used in obtaining oral responses was suggested as a possible reason for the significantly higher number of responses given by below-average readers in the second and sixth grades under this response condition. Further investigation of individual testing with Cloze was proposed as a means of studying the reading processes used by students of different reading abilities.